IN-CIRCUIT EMULATOR WITH GATEKEEPER BASED HALT CONTROL

ABSTRACT OF THE DISCLOSURE

A halt control gatekeeper for an In-Circuit Emulation system. Halt commands are implemented through a gatekeeper forming a portion of a virtual microcontroller that operates in lock-step synchronization with a real microcontroller under test. When a halt command is received, the gatekeeper determines if the microcontroller is in a sleep mode and, if so, appropriately notifies a host computer and queues up a halt command. If the microcontroller is not in a sleep mode, the gatekeeper simply queues a halt command and notifies the host computer when the microcontroller has halted and it is safe to perform debug operations on the virtual microcontroller.